5:Cooper E-4 (no date) 1946 SG4 Araucanians SG4

323 Except for some geometric
[331] designs on some of the archeological finds around Valdivia, most earlier *Mapuche-Huilliche* pottery was undecorated, and of comparatively crude workmanship. (For details on techniques and types, cf.: Latcham, 1928 b, pp. 47–56, 195–219; Guevara Silva, 1929, 2:247–62; Claude Joseph, 1931, pp. 43–48.)

324 **Stoneworking.**—The early *Mapuche-Huilliche* made considerable use of chipped-stone artifacts, such as arrowheads, and of polished-stone ones, such as celts and perforated rings, but no detailed accounts of processes of chipping, polishing, or drilling have come down to us.

325 **Mining and metallurgy.**—Some use was made by the *Mapuche-Huilliche* in pre-Hispanic times of gold, silver, and copper for adornments, utensils, and weapons, as evidenced by the not infrequent mention thereof in the very early chroniclers (e.g., Ercilla, 1910, p. xix; Mariño de Lovera, 1865, pp. 112, 125; González de Nájera, 1889, pp. 46–47; Bascuñan, 1863, p. 201; Rosales, 1877–78, 1:159). [316] Some mining for or gathering of gold was done by the *Araucanians* apparently on their own, under pressure from the very early conquistadors. Probably, too, some rough shaping and hammering was done. But there is no record of smelting or other metallurgical processes in any of the early sources (McClafferty, 1932, pp. 36–40).

Even silversmithing, as practiced so skillfully by the 19th-century *Mapuche-Huilliche*, begins to be described in our sources only after the close of the 18th century although it may have been developed a little earlier. Poeppig's *Pehuenche* of the Antuco region (1835–36, p. 386) used pointed stones instead of hammers in their silversmithing. Silversmithing, too, is first reported among the *Araucanian*-influenced *Tehuelche* only in the first third of the 19th century, about a century after their acquisition of horses and other *Araucanian* elements (Cooper, 1925, p. 408). In modern *Mapuche-Huilliche* silversmithing, crucibles of stone, with bellows, were used to melt the silver coins. The molten metal was poured into clay or sand molds (Edwards, 1929, p. 63), and after cooling, was worked with file and hammer over an anvil. The various products were used chiefly as female adornment and saddle-gear ornamentation. (For details on silversmithing techniques and products, cf.: Claude Joseph, 1928 b; Guevara Silva, 1929, 2:274–83.)

372 **Fire making and illumination.**—Fire was made with a drill, before the introduction of flint-and-steel and matches. The hearth (domo, "woman"), with a small perforation in the center, was held on the ground with the feet; the drill (wentru, "man"), twirled with the hands. The only record, to the present writer's knowledge, of producing fire by striking two stones together is that by Ofia (canto 4, 1917, p. 144), from Talcaguano region, near the *Mapuche-Picunche* borderline, and the account given by this none-too-reliable writer may not refer to an aboriginal fire-making method proper. Fire,